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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/069,618 | 06/03/2002 | Elchanan Bruckheimer | 1934/13 | 3477 |
| 7590 | 06/21/2005 | | EXAMINER | |
| Mark Friedman Bill Polkinghorn Discovery Dispatch 9003 Florin Way Upper Marlboro, MD 20772 | | | WEBB, SARAH K | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3731 | |
| DATE MAILED: 06/21/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,618

Applicant(s)

BRUCKHEIMER, ELCHANAN

Examiner

Sarah K Webb

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-13 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-13 and 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3,6,15-19,21, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,720,754 to Middleman et al.

Middleman discloses an instrument in Figures 4-3a,b that includes a delivery catheter (210) and multiple closed loops (225) of shape memory material. Middleman explains that the devices are formed of shape memory material, which is preferably nitinol (columns 3-4, esp. lines 10-11 of column 4). The loop is curved as viewed perpendicularly from the feed direction in Figure 4-3a and circular as viewed from the feed direction in Figure 4-3b. The loops can have various shapes (column 37, lines 7-11). Middleman explains that loops are straight during delivery and resume their memory shape when released from a catheter (210) (column 29, lines 1-10). Middleman also states that a filter structure can be attached to the loop (column 37, lines 16-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 5,7,9-13, 20,22, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,769,816 to Barbut et al. in view of Middleman et al.

Middleman fails to include an inflatable device (band or balloon) attached to the loop. Barbut discloses another filter (220) attached to a loop (240) deployed perpendicularly to the feed direction, as shown in Figure 4. Barbut teaches that an inflatable device (230), or balloon, can be connected to the loop and filter in order to make the diameter of the assembly adjustable (column 13, line 58 through column 14, line 32). IN this way, the diameter of the loop and filter assembly can be adjusted to fit various sizes and shapes of vessels. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an inflatable balloon on the loop of Middleman, as Barbut teaches that this provides an instrument that is adjustable during surgery to accommodate various sizes and shapes of vessels.

Regarding claim 11, the balloon is made is silicone. Regarding claims 7 and 22, Barbut includes a valve (268) that is mechanically linked to the loop (240), which aids in inflation of the balloon. Regarding claim 13, the device is capable of being deployed within a pulmonary artery.

3. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Middleman et al. in view of US Patent No. 5,312,416 (Spaeth et al.)

Middleman fails to include a "breakable section" in the loop. Spaeth discloses another self-expanding closed loop (18) in Figure 1. Spaeth teaches that the loop may have a "breakable section" (208), as shown in Figures 11 and 11a, in order to provide further expansion of the loop (column 14, lines 20-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a breakable section in the Middleman loop, as Spaeth teaches that this section allows for further expansion.

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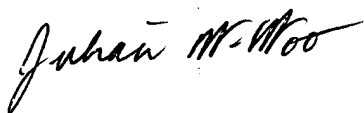
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah K Webb whose telephone number is (571) 272-4706. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan T. Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKW
6/16/05



JULIAN W. WOO
PRIMARY EXAMINER